

Eden Valley Groundwater Basin

- Groundwater Basin Number: 1-44
- County: Mendocino
- Surface Area: 1,380 acres (2 square miles)

Basin Boundaries and Hydrology

Eden Valley is an irregularly shaped, north and northwest-trending structural basin situated within the Coast Ranges of northeastern Mendocino County and located approximately 6.5 miles south of Round Valley. This valley is about 4 miles total length and has a width ranging from about 0.2 to 0.7 miles. The Eden Valley Groundwater Basin is defined by the areal extent of Quaternary Alluvium, which is bounded on all sides by bedrock of the Franciscan Formation.

Eden Valley is drained to the north by Eden Creek and its tributaries. Precipitation in Eden Valley ranges from approximately 51 inches in the northeast to 56 inches per year on the southwest side of the valley.

Hydrogeologic Information

Water-Bearing Formations

Significant water-bearing formations that occur in Eden Valley include only Quaternary Alluvium. Older Continental Deposits may be inferred to occur in the subsurface of the valley below the alluvium. Bedrock of the Franciscan Complex surrounds and underlies Eden Valley but due to its consolidated nature, it is essentially non-water bearing except for areas with significant fracture porosity. Information on water-bearing formations and groundwater occurrence was taken primarily from DWR (1958).

Alluvium and River Channel Deposits. These deposits are Holocene in age and consist largely of unconsolidated silts, gravels, clays, and sands. These deposits are exposed in the active river channel and floodplain of Eden Creek. The maximum thickness of these deposits is not known. Limited data suggests the alluvium may be over 100 feet thick in Eden Valley. No published well yield data was identified for wells in Eden Valley; however, wells drilled in this valley, Orbaun Valley, and in other small alluvial valleys in Mendocino County have proven unproductive because of low permeability. Groundwater in the alluvial deposits is typically unconfined but may be semi-confined locally. No published specific yield data for alluvium in Eden Valley are available.

Groundwater Level Trends

No groundwater level data for wells in Eden Valley are available and therefore, groundwater levels trends could not be determined.

Groundwater Storage

Groundwater Storage Capacity. No published values for groundwater storage capacity were identified.

Groundwater in Storage. No published values for the amount of groundwater in storage were identified.

Groundwater Budget (Type C)

No data available.

Groundwater Quality

Characterization. No recently published groundwater quality data is available for wells in Eden Valley; however, limited water quality data from 1953 from a domestic well indicate a magnesium-calcium bicarbonate water type with TDS of 140 ppm (DWR 1958)..

Impairments. No data available.

Well Characteristics

Well yields (gal/min)	
Municipal/Irrigation	No data is available.
Total depths (ft)	
Domestic	No data is available.
Municipal/Irrigation	No data is available.

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
DWR (incl. Cooperators)	Groundwater levels	None
DWR (incl. Cooperators)	Mineral, nutrient, & minor element.	None
Department of Health Services	Coliform, nitrates, mineral, organic chemicals, and radiological.	None

Basin Management

Groundwater management:	No groundwater management plans were identified
Water agencies	
Public	Mendocino County Water Agency
Private	

Selected Bibliography

California Department of Water Resources (DWR) 1958. Recommended Water Well Construction and Sealing Standards, Mendocino County. Bulletin No. 62 – November.

Errata

Changes made to the basin description will be noted here.